

**CERTIFICATE OF MAILING**

I hereby certify that this Information Disclosure Statement and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date 11/18/03 in an envelope as "Express Mail Post Office to Addressee" mailing label Number ER245858942US addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Mary E. Anza

(typed or printed name of person mailing paper)

Mary E. Anza

(Signature of person mailing paper)

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : Oleksiy Pikalo et al.  
For : SYSTEMS AND METHODS FOR IMPLEMENTING PATH LENGTH  
CONTROL FOR QUANTUM CRYPTOGRAPHIC SYSTEMS  
Filed: : Herewith

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §§ 1.56, 1.97 and 1.98**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant submits this Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.97 and 1.98 in the above-identified application for consideration by the Patent Office. A listing of the cited documents is also enclosed, as well as, for the Examiner's convenience, copies of the documents.

Applicant does not intend to represent that the documents submitted herein are material prior art to this invention or that the list represents an exhaustive search of documents related to this invention.

Applicant requests that the documents submitted herein be considered and made of record in this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James K. Weixel", with a large, stylized initial "J".

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**INFORMATION  
DISCLOSURE  
CITATION**  
PTO-1449

ATTORNEY'S DKT No.  
03-4007

APPLICATION No.  
Unassigned

APPLICANT(S)  
Oleksiy Pikalo et al.

FILING DATE  
Filed Herewith

GROUP  
Unassigned

**U.S. PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,243,649	09/07/93	Franson	380	9	
	5,339,182	08/16/94	Kimble et al.	359	112	
	5,414,771	05/09/95	Fawcett, Jr.	380	44	
	5,675,648	10/07/97	Townsend	380	21	
	5,732,139	03/24/98	Lo et al.	380	28	
	5,757,912	05/26/98	Blow	380	21	
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	5,768,378	08/16/94	Townsend et al.	380	21	
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	5,966,224	10/12/99	Hughes et al.	359	112	
	6,028,935	02/22/00	Rarity et al.	380	21	

**FOREIGN PATENT DOCUMENTS**

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	"Violations of a New Inequality for classical Fields"; J.D. Franson; The Johns Hopkins University, Applied Physics Laboratory; 1991; pages 23-32.
	"Quantum Cryptography Defies Eavesdropping"; Collins, Graham; Physics Today; Nov. 1992; pages 21-23.
	"Quantum Public Key Distribution System"; IBM Technical Disclosure Bulletin; Vol. 28, No. 7; December 7, 1985; pages 3153-3163.
	"Single Photon Interference in 10 km Long Optical Fibre Interferometer"; P.D. Townsend et al.; Electronics Letters; Vol. 29, No. 7; April 1993; pages 834-835
	"Enhanced Single Photon Fringe Visibility in A 10 km-Long Prototype Quantum Cryptography Channel"; P.D. Townsend et al.; Electronics Letters; Vol. 29, No. 14; July 1993; pages 1291-1293.
	"Secure Key Distribution System Based on Quantum Cryptography"; P.D. Townsend et al.; Electronics Letters; Vol. 30, No. 10; May 1994; pages 809-811.
	"Multi-User Quantum Cryptography on Optical Networks; Simon J.D. Phoenix et al.; Journal of Modern Optics; Vol. 42, No. 6; June 1995; pages 1155-1163.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	"Secret-Key Reconciliation by Public Discussion"; Gilles Brassard et al.; Department IRO, Universite de Montreal; 1994; 14 pages.
	"Quantum Cryptography: Public Key Distribution and Coin Tossing"; Charles H. Bennett et al; International Conference on Computers, Systems & Signal Processing; December 10-12, 1984; 5 pages.
	U.S. Serial No. 09/943,709, filed on August 31, 2001; Brig Barnum Elliott; Systems and Methods for Path Set-Up in a Quantum Key Distribution Network; 48 pages.
	U.S. Serial No. 10/271,103, filed on October 15, 2001; Oleksiy Pikalo et al.; Systems and Methods for Framing Quantum Cryptographic Links; 54 pages.
	U.S. Serial No. 09/944,328, filed on August 31, 2001; Brig Barnum Elliott; Quantum Cryptographic Key Distribution Networks with Untrusted Switches; 35 pages.
	"Quantum key distribution: Real-time compensation of interferometer phase drift," NTNU Department of Physical Electronics, pages 1-45.
	Attorney Docket No. 02-4085, filed concurrently herewith, Milton Alexander Colvin et al.; Systems and Methods for Implementing Training Frames for Quantum Cryptographic Links; 71 pages.
	Brig B. Elliott et al.: "Path-Length control in a interferometric QKD link," Proc. of SPIE, Vol. #5105, 4/21/03, 11 pages.

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